

## CLAIMS

What is claimed is:

- 5        1. A high density magnetic recording medium, which has a uniform local coercivity distribution and grain size distribution, and fine grains, comprising:
  - a CoCrPt alloy thin film including the  $(\text{Co}_{82}\text{Cr}_{18})_{100-x}\text{Pt}_x$  alloy thin film containing 1 to 14 atom% Pt; and
  - 10        a Ti thin film positioned under the  $(\text{Co}_{82}\text{Cr}_{18})_{100-x}\text{Pt}_x$  alloy thin film.
2. The high density magnetic recording medium as set forth in claim 1, wherein the  $(\text{Co}_{82}\text{Cr}_{18})_{100-x}\text{Pt}_x$  alloy thin film and the  
15        Ti thin film are respectively 400 and 1100 Å in thickness.
3. A high density magnetic recording medium using a CoCrPt alloy thin film, which has a uniform local coercivity distribution and grain size distribution, and fine grains,  
20        comprising:
  - a glass substrate;
  - a Ti thin film layered on the glass substrate;
  - a  $(\text{Co}_{82}\text{Cr}_{18})_{100-x}\text{Pt}_x$  alloy thin film containing 1 to 14 atom% Pt and deposited on the Ti thin film; and
  - 25        a  $\text{Si}_3\text{N}_4$  thin film deposited on the  $(\text{Co}_{82}\text{Cr}_{18})_{100-x}\text{Pt}_x$  alloy

thin film.

4. The high density magnetic recording medium as set forth in claim 3, wherein the  $(\text{Co}_{82}\text{Cr}_{18})_{100-x}\text{Pt}_x$  alloy thin film, the Ti thin film, and the  $\text{Si}_3\text{N}_4$  thin film are respectively 400, 1100, and 500 Å in thickness.

5. A method of manufacturing a high density magnetic recording medium which has a uniform local coercivity distribution and grain size distribution, and fine grains, comprising:

a first step of layering a Ti thin film on a glass substrate;

a second step of depositing a CoCrPt alloy thin film on the Ti thin film, the CoCrPt alloy thin film containing a predetermined composition of Pt controlled by a CoCr alloy target having a Pt chip positioned thereon; and

a third step of depositing  $\text{Si}_3\text{N}_4$  on the CoCrPt alloy thin film.

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6. The method as set forth in claim 5, wherein the second step is conducted under sputtering pressure of 3 mtorr at room temperature, and the CoCrPt alloy thin film is deposited on the Ti thin film in a deposition rate of 14 Å/s.